LOMA LINDA WATER CORPORATION PWS #3380007
SOURCE WATER ASSESSMENT FINAL REPORT

September 26, 2000

State of Idaho
Department of Environmental Quality

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Executive Summary

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the Act. This assessment is based on a land use inventory of the designated assessment area and sensitivity factors associated with the wells and aquifer characteristics.

This report, *Source Water Assessment for Loma Linda Water Corp., near Fruitland, Idaho*, describes the public drinking water system, the boundaries of the zones of water contribution, and the associated potential contaminant sources located within these boundaries. This assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. **The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.**

The Loma Linda Water Corp. drinking water system consists of two wells. Well #1 (North) was originally drilled in 1972 to a depth of 301 feet and deepened to 340 feet in 1986. Well #2 (South) was originally drilled in 1975 to a depth of 320 feet and deepened to a depth of 375 feet in 1985. The wells have experienced microbial contamination with five (5) total coliform violations; February 1993, March 1994, December 1995, December 1998 and July 1999. In December of 1998, a Public Notice of Contamination was published as a requirement of the Total Coliform Rule within the Safe Drinking Water Act. The system was shut down pending chlorination and the notice indicated the contamination was possibly related to repairs to the South well.

This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a "pristine" area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

For Loma Linda Water Corp., source water protection activities should focus on implementation of practices aimed at reducing the leaching of agricultural chemicals or any other surface activities within the source water area of Well #1 – North. This well is screened within the upper, unconfined alluvial aquifer, which is vulnerable to contamination from surface activities. Due to the time involved with the movement of groundwater, source water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. Source water protection activities for agriculture should be coordinated with the Idaho State Department of Agriculture, the Soil Conservation Commission and local Soil Conservation District, and the Natural Resources Conservation Service.

A community with a fully developed source water protection program will incorporate many strategies. For assistance in developing protection strategies please contact the Boise Regional Office of the Idaho Department of Environmental Quality or the Idaho Rural Water Association.

SOURCE WATER ASSESSMENT FOR LOMA LINDA WATER CORP., IDAHO

Section 1. Introduction - Basis for Assessment

The following sections contain information necessary to understand how and why this assessment was conducted. **It is important to review this information to understand what the ranking of this source means.** A map showing the delineated source water assessment area and the inventory of significant potential sources of contamination identified within that area are attached. The list of significant potential contaminant source categories and their rankings used to develop the assessment also is attached.

Background

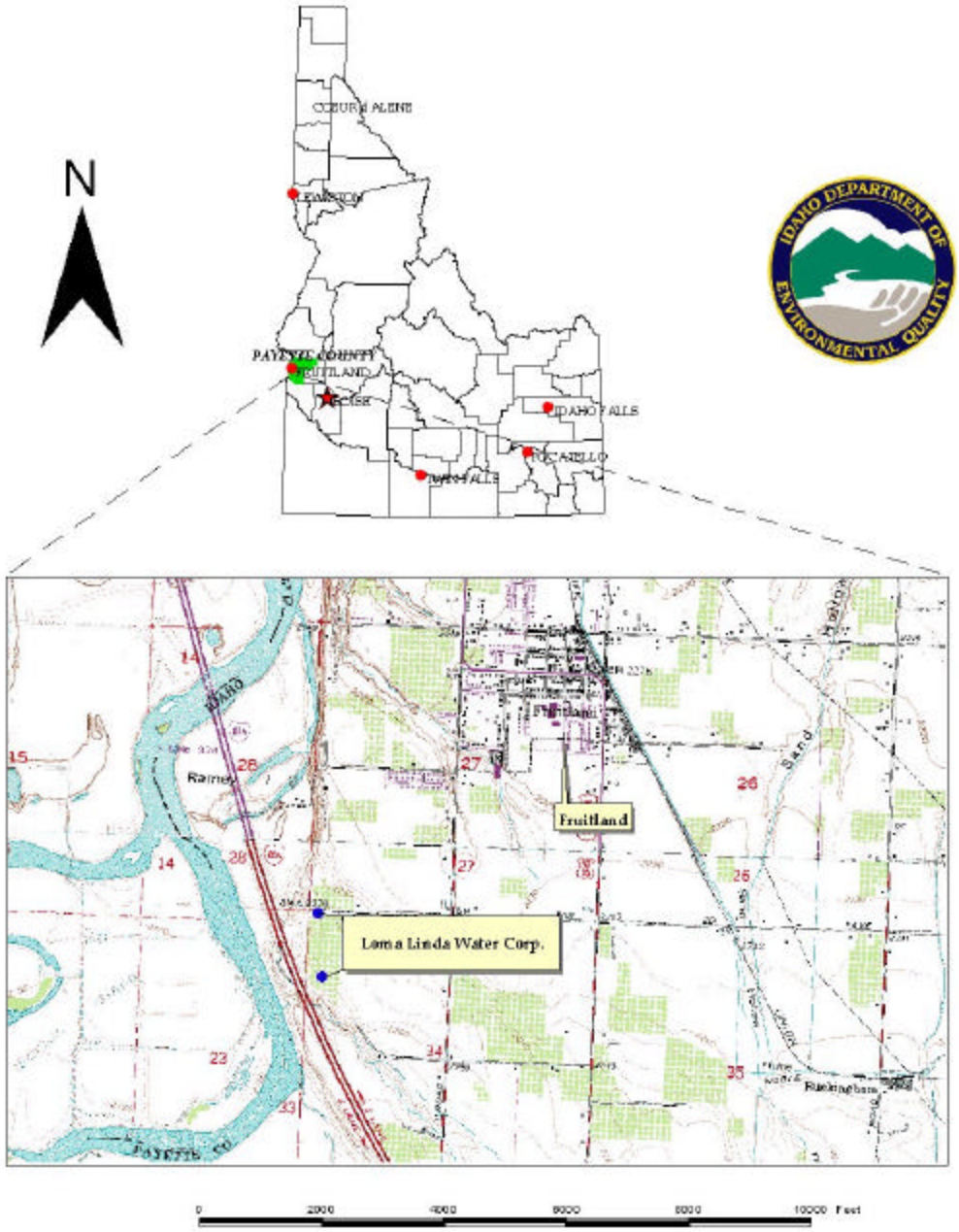
Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency (EPA) to assess every source of public drinking water for its relative susceptibility to contaminants regulated by the Safe Drinking Water Act. This assessment is based on a land use inventory of the delineated assessment area and sensitivity factors associated with the wells and aquifer characteristics.

Level of Accuracy and Purpose of the Assessment

Since there are over 2,900 public water sources in Idaho, there is limited time and resources to accomplish the assessments. All assessments must be completed by May of 2003. An in-depth, site-specific investigation of each significant potential source of contamination is not possible. **Therefore, this assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. The results should <u>not be</u> used as an absolute measure of risk and they should <u>not be</u> used to undermine public confidence in the water system.**

The ultimate goal of the assessment is to provide data to local communities to develop a protection strategy for their drinking water supply system. The Idaho Department of Environmental Quality (IDEQ) recognizes that pollution prevention activities generally require less time and money to implement than treatment of a public water supply system once it has been contaminated. IDEQ encourages communities to balance resource protection with economic growth and development. The decision as to the amount and types of information necessary to develop a source water protection program should be determined by the local community based on its own needs and limitations. Wellhead or source water protection is one facet of a comprehensive growth plan, and it can complement ongoing local planning efforts.

Figure 1. Geographic Location of Loma Linda Water Corp.



Section 2. Conducting the Assessment

General Description of the Source Water Quality

LOMA LINDA WATER CORP., a community water system with 26 connections serving approximately 70 people, is located approximately 1 mile southwest of Fruitland, Idaho (Figure 1). The public drinking water system for LOMA LINDA WATER CORP. is comprised of two wells.

The primary water quality issue currently facing LOMA LINDA WATER CORP. is that of microbial (total coliform) contamination and the problems associated with managing this contamination. Historically, the system has been taken off line, pending chlorination as a result of contamination related to total coliform that exceeded the Maximum Contaminant Level.

Defining the Zones of Contribution--Delineation

The delineation process establishes the physical area around a well that will become the focal point of the assessment. The process includes mapping the boundaries of the zone of contribution into time of travel zones (zones indicating the number of years necessary for a particle of water to reach a well) for water in the aquifer. IDEQ used a refined analytical computer model (WhAEM) developed by the EPA in determining the 3-, 6-, and 10- year time of travel for water associated with the Payette Valley Hydrogeologic Province in the vicinity of LOMA LINDA WATER CORP. The computer model used site specific data, assimilated by IDEQ from a variety of sources including the system and other local well logs. The delineated source water assessment area for the LOMA LINDA WATER CORP. wells can best be described as two approximately ¼ mile wide corridors truncating from the wells towards the southwest. The actual data used by IDEQ in determining the source water assessment delineation areas are available upon request.

Identifying Potential Sources of Contamination

A potential source of contamination is defined as any facility or activity that stores, uses, or produces, as a product or by-product, the contaminants regulated under the Safe Drinking Water Act and has a sufficient likelihood of releasing such contaminants at levels that could pose a concern relative to drinking water sources. The goal of the inventory process is to locate and describe those facilities, land uses, and environmental conditions that are potential sources of ground water contamination. The locations of potential sources of contamination within the delineation areas were obtained by field surveys conducted by IDEQ and from available databases.

The dominant land use outside LOMA LINDA WATER CORP. is irrigated agricultural practices and small business.

Land use within the LOMA LINDA WATER CORP. source area consists of residential homes, small businesses, and light manufacturing. It is assumed that homes within the area of the system operate with individual septic systems.

It is important to understand that a release may never occur from a potential source of contamination provided they are using best management practices. Many potential sources of contamination are regulated at the federal level, state level, or both to reduce the risk of release. Therefore, when a business, facility, or property

is identified as a potential contaminant source, this should not be interpreted to mean that this business, facility, or property is in violation of any local, state, or federal environmental law or regulation. What it does mean is that the potential for contamination exists due to the nature of the business, industry, or operation. There are a number of methods that water systems can use to work cooperatively with potential sources of contamination. These involve educational visits and inspections of stored materials. Many owners of such facilities may not even be aware that they are located near a public water supply well.

Contaminant Source Inventory Process

A two-phased contaminant inventory of the study area was conducted during August of 2000. The first phase involved identifying and documenting potential contaminant sources within the LOMA LINDA WATER CORP. Source Water Assessment Area through the use of computer databases and Geographic Information System (GIS) maps developed by IDEQ. This is referred to as a primary contaminant inventory. The second or enhanced phase of the contaminant inventory involved conducting an on-the-ground identification of potential sources and validation of sources identified in phase one. This task was undertaken with the assistance of Rick Watkins. Figure 2 is the wellhead delineation area of Well #1 – North. No potential contaminant sources were found within the wellhead in either the primary or the enhanced contaminant inventories. Figure 3 is the wellhead delineation area of Well #2 – South. The only potential contaminant source within the Well #2 – South delineation was encountered by conducting the enhanced contaminant inventory. The potential contaminant source located to the south of Well #2 – South is a new convenience store/fueling station. Table 1 lists the potential contaminant sources, time of travel zone in which sources are found, the source of information and what the potential contaminants may include.

Contaminants of concern are primarily related to volatile organic compounds and synthetic organic compounds (VOC and SOC's) which are attributed to petroleum products, of which a fueling station located within the delineation zone of Well #2 - South may be a potential source.

FIGURE 2. LOMA LINDA WATER CORP. Delineation Map and Contaminant Sources

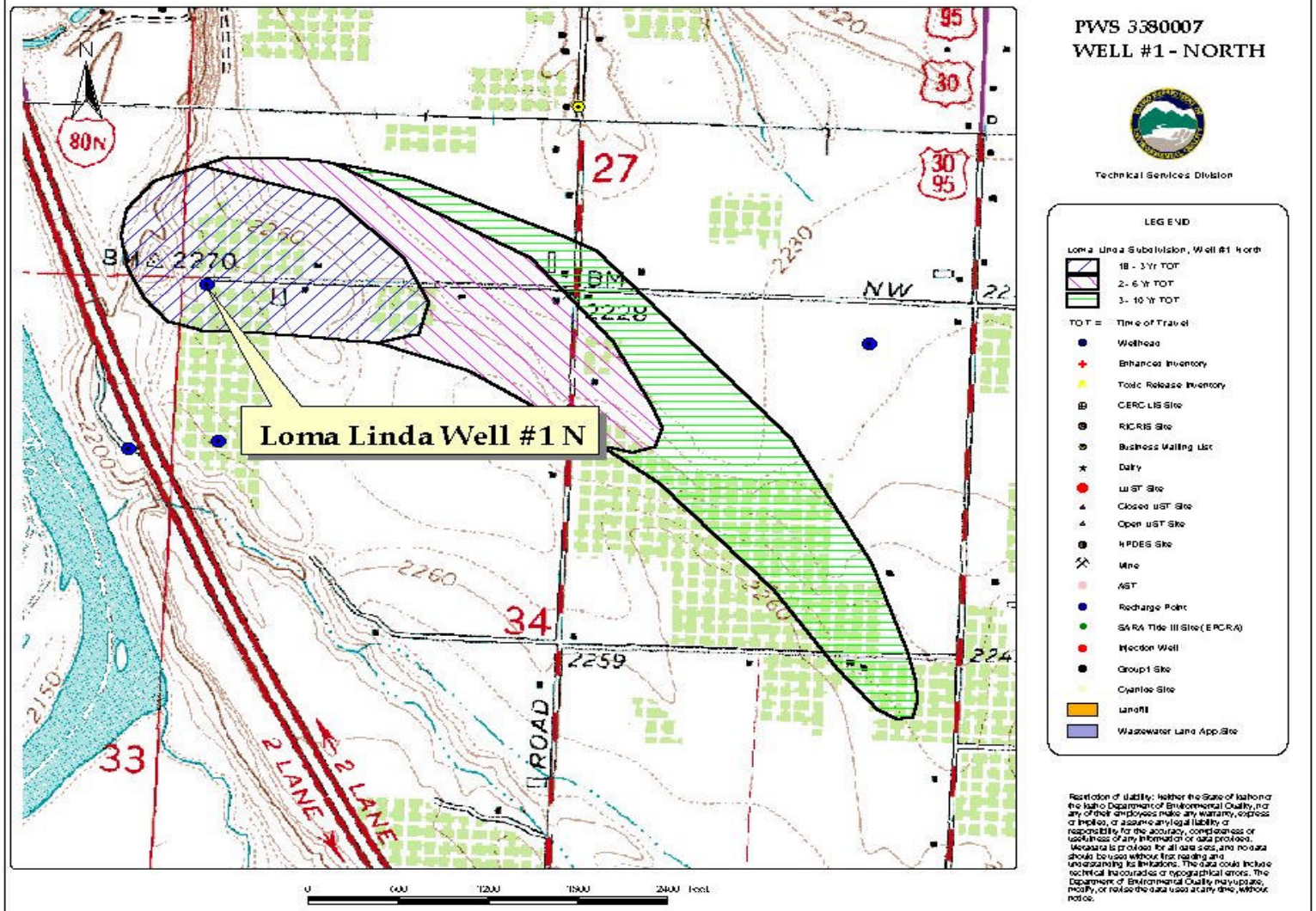
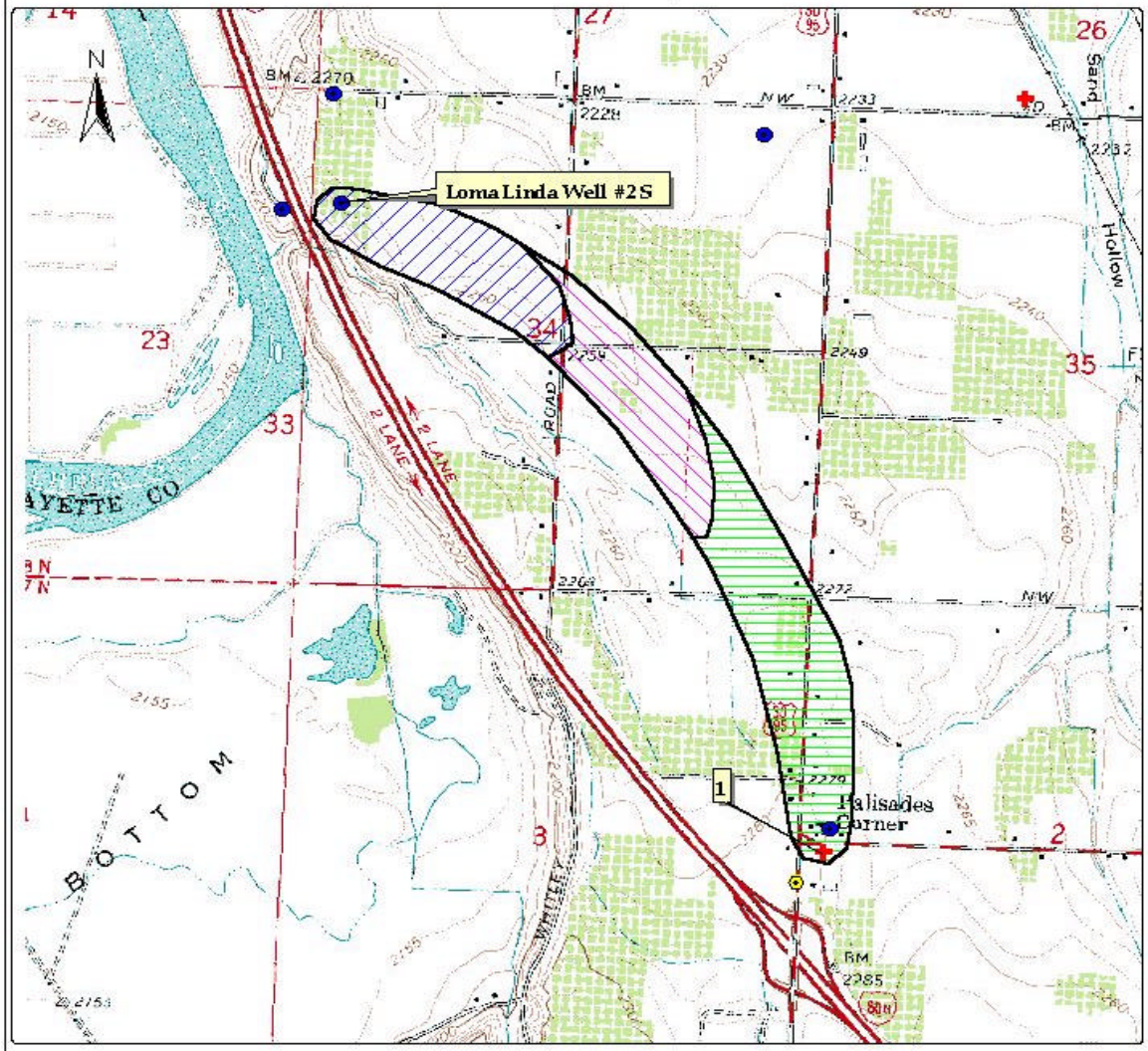


FIGURE 3. LOMA LINDA WATER CORP. Delineation Map and Contaminant Sources



PWS 3380007
WELL #2 - SOUTH

Technical Services Division

LEGEND

Loma Linda Subdivision, Well #2 South
- 1B - 1 Yr TOT
- 2 - 5 Yr TOT
- 3 - 10 Yr TOT

TOT = Time of Travel

- Wellhead
- Enhanced Inventory
- Toxic Release Inventory
- CERCLIS Site
- RICRIS Site
- Business Mailing List
- Dairy
- LUST Site
- Closed UST Site
- Open UST Site
- NPDES Site
- Mine
- AST
- Recharge Point
- SARA Title III Site (EPCRA)
- Injection Well
- Group I Site
- Cyanide Site
- Landfill
- Wastewater Land App.Site

Table 1. LOMA LINDA WATER CORP. Potential Contaminant Inventory

SITE #	Source Description	TOT Zone (years)	Source of Information	Potential Contaminants
1	Fuel Station	10	Enhanced Inventory	VOC, SOC

IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

Susceptibility Analyses

The susceptibility of the wells to contamination were ranked as high, moderate, or low risk according to the following considerations: hydrologic characteristics, physical integrity of the well, land use characteristic, and potentially significant contaminant sources. The susceptibility rankings are specific to a particular potential contaminant or category of contaminants. Therefore, a high susceptibility rating relative to one potential contaminant does not mean that the water system is at the same risk for all other potential contaminants. The relative ranking that is derived for each well is a qualitative, screening-level step that, in many cases, uses generalized assumptions and best professional judgement. The following summaries describe the rationale for the susceptibility ranking.

Hydrologic Sensitivity

Hydrologic sensitivity is moderate for both wells (see Table 2). The soils are classified as poorly to moderately drained. The vadose zone, or the interval between the soils and the upper aquifer where ground water is present consists of silty sand or silty sand and gravel. The upper alluvial aquifer is recharged by canal leakage, direct precipitation, and surface water irrigation. A blue clay/sandy clay sequence or aquitard lies below this upper aquifer. The aquitard is thought to retard vertical transport of contaminants generated by surface activities. Below this clay sequence lies a confined lower aquifer that is much older and whose source of recharge is uncertain.

Table 2. Selected Construction Characteristics of LOMA LINDA WATER CORP. Wells.

Well #	Total Depth (ft.)	Screened Interval (ft. below ground surface)	Screen Below Blue Clay?	Gravel Pack Interval (ft.)
1 - N.	340	53-93, 133-173, 313-333 (pumping level @ 300')	N	??
2 - S.	375	110-250, 290-320, 350-370 (pumping level @ 142')	N	??

Well Construction

The construction of the LOMA LINDA WATER CORP. public water system wells directly affects the ability of the wells to protect the aquifer from contaminants. The LOMA LINDA WATER CORP. drinking water system consists of two wells that extract ground water for domestic uses. Well system construction scores were generally moderate overall in the susceptibility ranking.

The wells in the LOMA LINDA WATER CORP. system range in total depth from 340 to 375 feet below ground surface. The wells were originally drilled in the 1970's and both wells were deepened in the mid 1980's. Original construction of these wells had the screen intervals in both the upper shallow unconfined aquifer and the lower confined aquifer. The upper unconfined aquifer is prone to contamination from surface activities. The lower confined aquifer is generally protected from contamination due to a semi-impervious blue clay layer that serves as a protective barrier to the contaminants generated from surficial activities. It is possible that mixing between the two aquifers has occurred due to the construction (screening within both the upper and lower aquifers) of the wells.
For the reconstruction of Well #1 North (1986), the log indicates that it is screened from 53 – 93 feet; 133 – 173 feet and again from 313 – 333 feet. The protective clay sequence does not start until a depth of 138 feet. It is possible that mixing between the upper and lower aquifer has occurred. On December 3, 1998 the total coliform content above maximum contaminant levels required public notification. A December 14, 1998 Public Notice of Contamination indicated that the cause could be due to possible repairs to the South Well. Total coliform was again present on January 6, 1999. Total coliform was absent when tested on May 3, 2000 and again absent on July 12, 2000.

The reconstruction of Well #2 South (1985) does appear to have the screened intervals beginning within the blue clay sequence, offering protection.

Current construction standards for public drinking water supply wells require with an 8" diameter steel casing to have a minimum thickness of 0.322 inches (IDAPA58.01.08). Well #1 North complies with the thickness, however the casing schedule indicates that it is PVC. Well #2 South has steel casing with a thickness of 0.250 inches which is below the minimum required thickness of 0.322 inches. Also neither well in the reconstruction log indicates any surface seal method.

Potential Contaminant Source and Land Use

Both wells were rated moderate in their overall score in this category. Agricultural chemical sources, particularly nitrogen usage and irrigated agricultural land use in the delineated source areas for both wells contributed the largest numbers of points to the contaminant inventory rating.

In terms of the total susceptibility score, it can be seen from Table 3 that both wells scored high for microbial and moderate in other categories of the final susceptibility ranking.

Table 3. Summary of LOMA LINDA WATER CORP. Susceptibility Evaluation

Well	Susceptibility Scores									
	Hydrologic Sensitivity	Contaminant Inventory				System Construction	**Final Susceptibility Ranking**			
		IOC	VOC	SOC	Microbials		IOC	VOC	SOC	Microbials
1	M	M	L	L	L	M	M	M	M	H*
2	M	M	L	M	L	M	M	M	M	H*

H = High Susceptibility, M = Moderate Susceptibility, Low Susceptibility
IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical
H* - Indicates source automatically scored as high susceptibility due to presence of either a VOC, SOC, IOC or microbial above the Maximum Contaminant Level in the finished drinking water.

Susceptibility Summary

The LOMA LINDA WATER CORP. drinking water system is currently ranked high for microbial contamination due to historical records. All other aspects for the system are within a moderate ranking for contamination susceptibility.

Total coliform bacteria are generally considered to be an indicator of pathogenic ground water contamination. Although Total Coliform bacteria itself does not represent a public health concern, other bacteria and viruses associated with it may represent serious health concerns. Total Coliform bacteria are often associated with surface activities. Potential sources of bacteria contamination can include subsurface sewage disposal systems (septic tanks and drain fields), contaminated surface water and confined animal rearing areas.

Primary concern for this system is the possible cross contamination with the upper unconfined aquifer that may account for historical total coliform detections. Groundwater in the shallow aquifer is recharged primarily from surface water irrigation, direct precipitation, and canal leakage while the sources of recharge to the deeper aquifer are indeterminate but are very likely much older. Even though both wells are pumping water from the lower aquifer, screen intervals occur in upper units within Well #1.

Section 4. Options for Source Water Protection

The susceptibility assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what the susceptibility ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

An effective source water protection program is tailored to the particular local source water protection area. A community with a fully developed source water protection program will incorporate many strategies. For LOMA LINDA WATER CORP., source water protection activities should focus on implementation of practices aimed at reducing of the percolation of contaminants into the upper alluvial aquifer which Well # 1 – North has a screen interval in. The predominant land use within the delineated area of both wells consists of agricultural activities.

The water system may wish to consider reconstruction of Well #1 by eliminating the screened intervals in the upper aquifer. This would reduce the potential for mixing between the upper unconfined aquifer and the lower confined aquifer. The surface seals of both wells should be addressed as well, there is no indication in the logs of the wells when they were re-drilled in the mid 1980's that new surface seals were included.

Assistance

Public water supplies and others may call the following IDEQ offices with questions about this assessment and to request assistance with developing and implementing a local protection plan. In addition, draft protection plans may be submitted to the IDEQ office for preliminary review and comments.

Boise Regional IDEQ Office	(208) 373-0550
State IDEQ Office	(208) 373-0502

Website: http://www2.state.id.us/deq

Water suppliers serving fewer than 10,000 persons may contact John Bokor, Idaho Rural Water Association, at (208) 743-6142 for assistance with wellhead protection strategies.

References Cited

Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, 1997, "Recommended Standards for Water Works"

Idaho Department of Water Resources, 1993. Administrative Rules of the Idaho Water Resource Board: Well Construction Standards Rules. IDAPA 37.03.09.

Idaho Department of Environmental Quality, 1997. Design Standards for Public Drinking Water Systems. IDAPA 58.01.08.550.01.

Idaho Dept. of Environmental Quality, 1999, Idaho Source Water Assessment Plan

Howarth, Rob, 1996, Ground Water Quality Technical Report No. 7, An Evaluation of Bacteria in Ground Water Near Mountain Home, Elmore County, Idaho, Idaho Division of Environmental Quality, Southwest Idaho Regional Office

University of Idaho. 1986. Ground Water Resources in a Portion of Payette County, Idaho. Idaho Water Resources Research Institute. University of Idaho. Moscow, Idaho. April 1986.

POTENTIAL CONTAMINANT INVENTORY
LIST OF ACRONYMS AND DEFINITIONS

AST (Aboveground Storage Tanks) – Sites with aboveground storage tanks.

Business Mailing List – This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

CERCLIS – This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as ASuperfund≅ is designed to clean up hazardous waste sites that are on the national priority list (NPL).

Cyanide Site – DEQ permitted and known historical sites/facilities using cyanide.

Dairy – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

Deep Injection Well – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

Enhanced Inventory – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (IDEQ) during the primary contaminant inventory.

Floodplain – This is a coverage of the 100year floodplains.

Group 1 Sites – These are sites that show elevated levels of contaminants and are not within the priority one areas.

Inorganic Priority Area – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

Landfill – Areas of open and closed municipal and non-municipal landfills.

LUST (Leaking Underground Storage Tank) – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

Mines and Quarries – Mines and quarries permitted through the Idaho Department of Lands.)

Nitrate Priority Area – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

NPDES (National Pollutant Discharge Elimination System) – Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

Organic Priority Areas – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

Recharge Point – This includes active, proposed, and possible recharge sites on the Snake River Plain.

RICRIS – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities) – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

Toxic Release Inventory (TRI) – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

UST (Underground Storage Tank) – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

Wastewater Land Applications Sites – These are areas where the land application of municipal or industrial wastewater is permitted by IDEQ.

Wellheads – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

NOTE: Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.

Attachment A

Loma Linda Water Corp.
Susceptibility Analysis
Worksheet

The final scores for the susceptibility analysis were determined using the following formulas:

1) VOC/SOC/IOC Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.2)

2) 2) Microbial Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.35)

Final Susceptibility Scoring:

0 - 5 Low Susceptibility

6 - 12 Moderate Susceptibility

> 13 High Susceptibility

Ground Water Susceptibility Report Public Water System Name : LOMA LINDA WATER CORP Well# : WELL #1 - NORTH

Public Water System Number 3380007 8/21/00 9:22:17 AM

1. System Construction		SCORE				
Drill Date	4/26/72					
Driller Log Available	YES					
Sanitary Survey (if yes, indicate date of last survey)	YES	1993				
Well meets IDWR construction standards	NO	1				
Wellhead and surface seal maintained	YES	0				
Casing and annular seal extend to low permeability unit	NO	2				
Highest production 100 feet below static water level	YES	0				
Well located outside the 100 year flood plain	YES	0				
Total System Construction Score		3				
2. Hydrologic Sensitivity						
Soils are poorly to moderately drained	YES	0				
Vadose zone composed of gravel, fractured rock or unknown	NO	0				
Depth to first water > 300 feet	NO	1				
Aquitard present with > 50 feet cumulative thickness	NO	2				
Total Hydrologic Score		3				
3. Potential Contaminant / Land Use - ZONE 1A		IOC Score	VOC Score	SOC Score	Microbial Score	
Land Use Zone 1A	IRRIGATED CROPLAND	2	2	2	2	
Farm chemical use high	YES	2	0	0		
IOC, VOC, SOC, or Microbial sources in Zone 1A	YES	NO	NO	NO	YES	
Total Potential Contaminant Source/Land Use Score - Zone 1A		4	2	2	2	
Potential Contaminant / Land Use - ZONE 1B						
Contaminant sources present (Number of Sources)	NO	0	0	0	0	
(Score = # Sources X 2) 8 Points Maximum		0	0	0	0	
Sources of Class II or III leacheable contaminants or	YES	4	0	0		
4 Points Maximum		4	0	0		
Zone 1B contains or intercepts a Group 1 Area	YES	2	0	0	0	
Land use Zone 1B	Greater Than 50% Irrigated Agricultural Land	4	4	4	4	
Total Potential Contaminant Source / Land Use Score - Zone 1B		10	4	4	4	
Potential Contaminant / Land Use - ZONE II						
Contaminant Sources Present	NO	0	0	0		
Sources of Class II or III leacheable contaminants or	YES	1	0	0		
Land Use Zone II	Greater Than 50% Irrigated Agricultural Land	2	2	2		
Potential Contaminant Source / Land Use Score - Zone II		3	2	2	0	
Potential Contaminant / Land Use - ZONE III						
Contaminant Source Present	NO	0	0	0		
Sources of Class II or III leacheable contaminants or	YES	1	0	0		
Is there irrigated agricultural lands that occupy > 50% of	YES	1	1	1		

Total Potential Contaminant Source / Land Use Score - Zone III	2	1	1	0
Cumulative Potential Contaminant / Land Use Score	19	9	9	6
4. Final Susceptibility Source Score	10	8	8	8
5. Final Well Ranking	Moderate	Moderate	Moderate	High

Ground Water Susceptibility Report Public Water System Name : LOMA LINDA WATER CORP Well# : WELL #2 - SOUTH

Public Water System Number 3380007 8/21/00 9:22:17 AM

1. System Construction		SCORE
Drill Date	6/25/85	
Driller Log Available	YES	
Sanitary Survey (if yes, indicate date of last survey)	YES	1993
Well meets IDWR construction standards	NO	1
Wellhead and surface seal maintained	YES	0
Casing and annular seal extend to low permeability unit	NO	2
Highest production 100 feet below static water level	NO	1
Well located outside the 100 year flood plain	YES	0
	Total System Construction Score	4

2. Hydrologic Sensitivity		
Soils are poorly to moderately drained	YES	0
Vadose zone composed of gravel, fractured rock or unknown	NO	0
Depth to first water > 300 feet	NO	1
Aquitard present with > 50 feet cumulative thickness	NO	2
	Total Hydrologic Score	3

3. Potential Contaminant / Land Use - ZONE 1A		IOC Score	VOC Score	SOC Score	Microbial Score
Land Use Zone 1A	IRRIGATED CROPLAND	2	2	2	2
Farm chemical use high	YES	2	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	YES	NO	NO	NO	YES
Total Potential Contaminant Source/Land Use Score - Zone 1A		4	2	2	2

Potential Contaminant / Land Use - ZONE 1B					
Contaminant sources present (Number of Sources)	NO	0	0	0	0
(Score = # Sources X 2) 8 Points Maximum		0	0	0	0
Sources of Class II or III leacheable contaminants or	YES	4	0	0	
4 Points Maximum		4	0	0	
Zone 1B contains or intercepts a Group 1 Area	YES	2	0	0	0
Land use Zone 1B	Greater Than 50% Irrigated Agricultural Land	4	4	4	4
Total Potential Contaminant Source / Land Use Score - Zone 1B		10	4	4	4

Potential Contaminant / Land Use - ZONE II					
Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or	YES	1	0	0	
Land Use Zone II	Greater Than 50% Non-Irrigated Agricultural	1	1	1	
Potential Contaminant Source / Land Use Score - Zone II		2	1	1	0

Potential Contaminant / Land Use - ZONE III					
Contaminant Source Present	YES	0	1	0	
Sources of Class II or III leacheable contaminants or	YES	1	0	0	
Is there irrigated agricultural lands that occupy > 50% of	YES	1	1	1	
Total Potential Contaminant Source / Land Use Score - Zone III		2	2	1	0

Cumulative Potential Contaminant / Land Use Score	18	9	8	6
4. Final Susceptibility Source Score	11	9	9	9
5. Final Well Ranking	Moderate	Moderate	Moderate	High